



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/842,363

04/25/2001

Ahmad Ansari

7780/13 (T00341)

6562

7590

12/19/2005

Brinks Hofer Golson & Lione

P O Box 10395

Chicago, IL 60610

EXAMINER

RAMAN, USHA

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/842,363		ANSARI ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Usha Raman		2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8-12-05</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Arguments***

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-4, 6-13, 15-19, 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Hassan et al. (US Pat. 5,940,117) in view of Gonzales et al. (US Pat. 5,414,469).

In regards to claims 1, 11 and 21, Hassan discloses a method of downloading image to a subscriber terminal using multi-resolution scheme, comprising the steps of:

Decomposing an image into a plurality of image quality portions, a low quality image portion (base image, containing the coarsest resolution) of the plurality of image resolutions comprising a complete copy of the image lower than at least one of the plurality of image quality portions (lowest resolution of the image). See abstract, column 1, lines 58-67.

Downloading a complete copy of the low quality video portion to the subscriber terminal (image display unit) for storage locally at the subscriber terminal. See column 2, lines 1-9.

Receiving from the subscriber terminal a selection request (image data request) for a higher quality of the corresponding image content (column 2, lines 4-6) after downloading the complete copy of the low image portion (i.e. base image, see column 2, lines 1-2) ; and

Downloading at least one of the plurality of video quality portions having a video quality higher than the low quality video portion to the subscriber in response to the selection request (see column 2, lines 5-16).

Hassan only discloses the multi-resolution decomposing and recomposing scheme for image data in order to save the bandwidth by transmitting the lowest level of an image a user desires. Hassan is silent about the multi-resolution scheme for video content.

Gonzales teaches the use of such a multi-resolution scheme on video content. See abstract and column 10, lines 3-15.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hassan in view of Gonzales by applying the same multi-resolution techniques for transmission of video data, thereby saving bandwidth and transmission time during the transmission of video data.

In regards to claim 3, the system further comprises the step of compressing the video content (See Gonzales, abstract).

In regards to claims, 4 and 13, the system further comprises the step of compressing the video (MPEG-1) using transform based algorithms (DCT). See Gonzales: abstract.

In regards to claims 6 and 15, at least one of the plurality of video quality portions has a quality higher (hierarchical layers with increasing levels of resolution, see Gonzales column 10, lines 8-16) than the low quality video portion downloaded to the subscriber terminal in real time (see Hassan: column 2, lines 5-12).

In regards to claims 7 and 16, the system further comprises the step wherein each of the video quality portions represents a different level of service quality (see Gonzales: column 10, lines 8-16);

In regards to claims 8, 17, 23, 24, the system further comprises the steps of:  
Determining a download bandwidth available to the subscriber terminal (see Hassan: column 4, lines 60-67, column 5, lines 1-2, column 7, lines 23-37).

Selecting the at least one of plurality of video quality portions having a quality higher than the low quality video portion based on the download bandwidth (see Hassan: column 2, lines 5-16).

In regards to claims 9 and 22, Hassan teaches the step of transmitting a first base image and then provide the additional image details for recomposition at the subscriber terminal, in order to provide a higher resolution of image. Such a signal decomposition/recomposition method uses a pyramidal scheme, with incremental levels of resolution increasing the quality of the image. See Hassan: abstract, column 1, lines 58-57, column 2, lines 1-35, and column 3, lines 3-9.

In regards to claim 10, the system further comprises the step of recomposing a plurality of downloaded video quality portions representing the program at the

Art Unit: 2617

subscriber terminal for presenting the content to a user (see Hassan: abstract, column 2, lines 10-12 and see Gonzales: column 10, lines 11-16).

In regards to claim 12, the modified system does not transmit the use of ADSL as means for connecting the user terminal to the network.

Examiner takes official notice that ADSL was well known at the time of the invention, used to connect subscriber terminals to network such as the Internet.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system by allowing a subscriber terminal to communicate with the video content provider using a ADSL communication line. The motivation is to use a transmission mode deployed over existing infrastructure (i.e. telephone lines) that allows for a higher downstream bandwidth.

In regards to claim 18, see claims 1, 11 and 12. The modified system comprises means to subscriber device capable of receiving video signal, however is silent that the subscriber device is a set top box.

Examiner takes official notice that set top boxes were well known in the art at the time of invention. It would have been obvious to one of ordinary skill to modify the system to use a set top subscriber terminal, so that the user can receiver cable television signals.

In regards to claim 19, the modified system comprises the step of encoding files for variety of decoder formats. The client system therefore has a decoder for decompressing the compressed (MPEG-1 data, see Gonzales: abstract) content file for playback.

Art Unit: 2617

4. Claims 5, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassan et al. (US Pat. 5,940,117) in view of Gonzales et al. (US Pat. 5,414,469) as applied to claims 1, 11 and 18 above, and further in view of DeBey (US Pat. 5,701,582).

In regards to claims 5, 14 and 20, the modified system does not comprise the step of downloading the low quality video portion the subscriber terminal during off peak hours.

DeBey discloses the step of pre-caching movie clips during off peak hours in order to reduce bandwidth during peak hours. See column 11, lines 50-64.

It would have been obvious to one of ordinary skill in the art to modify the system to download the base signal during off peak hours, thereby further reducing the bandwidth consumed during the peak hours.

### ***Conclusion***

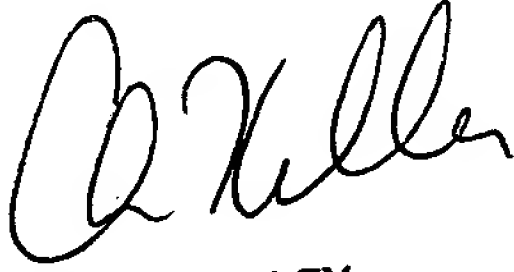
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

UR

  
CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600